

# 2014 Weekly Field Reports

## Copacabana, King George Island

Volume 1  
25 November 2013

### Arrival and Camp Opening Report:

1. We departed Ushuaia, Argentina at 18:00 h November 9<sup>th</sup> aboard the Aurora Expeditions ship Polar Pioneer and arrived in Admiralty Bay, King George Island early on November 12<sup>th</sup>. Cargo and personal gear were transported from the ship to Copacabana Field Station by zodiac with assistance from two members of Aurora Expeditions staff. We had good landing conditions in front of Copa and we were ashore with all equipment, clothing and food by 9 am.
2. The Camp was intact, though very damp and moldy. We spent the remainder of the day cleaning and drying out the main building. Our food and supplies were stored on shelves in the pantry area after everything was wiped down with bleach. We moved into the main building that afternoon following a thorough cleaning. We have continued to clean and bleach areas all week to rid the camp of as much mold as possible.
3. The camp is surrounded by a 4-5 foot high icy berm, suggesting a warm-up at some earlier date followed by a hard freeze. All propane tanks, gas cans, and the canoe are solidly locked in 3-4 inches of ice and the ground is frozen solid. It appears to have been a cold spring. Since arrival, temperatures have remained below freezing, all stored water is frozen, and we are melting snow for camp use.
4. We spent two days digging out the canoe from an icy snowdrift and pulled it over to the Ecology Glacier and tied it down, ready for use to travel to Arctowski (the nearby Polish station) when time and weather permit. However, the lake is currently full of ice and we are not able to canoe across at present.
5. Power systems – The solar power came right on and within hours the power was at 100% of battery capacity. We have monitored the power for a week and rarely does it drop below 95%. Given our needs and the fact that solar power is supplying all we can use, we will not bother putting up the wind generator as it would only overcharge the power system.
6. Email System – We have limited connectivity for data and email services with our current equipment and it appears that the mobile antenna is insufficient for reliable data purposes. We are missing a connector (co-axial to phone antenna adapter) for using the outdoor antenna that is mounted on the communications pole behind the hut. Without the connector we will likely not have email available at Copa this year. We have been staying in touch via Iridium phone calls and phone reception has been reliable.



**Science Report:**

7. Adélie census – We conducted a count of all occupied Adélie penguin nests in the Copa colony on Nov 13<sup>th</sup>. The number of pairs recorded was 3246; an increase of over 50% from the population estimate of 2012. We anticipated a sharp rebound from the very low numbers reported in November of last year, given the heavy snow and nest abandonment witnessed in 2012. The large increase observed was welcome after years of steady population declines among Adélie penguins.
8. Adult survival and known-age returns – We have spent hours in the colonies reading the bands of Adélie and gentoo penguins that have returned and are breeding in the Copa colony. The band reading will continue throughout the month of November, as many birds are now at sea but will return to relieve their mates.
9. We measured the length and breadth of eggs (E1 & E2) from 50 nests of Adélie and gentoo penguins scattered throughout the Copa penguin colony.
10. We measured snow levels at the stakes placed throughout the colony.
11. We checked the overwinter camera, but unfortunately the system did not work this winter. The data card had only one picture on it, the initial shot taken automatically on February 26th at 1:36 pm when the camera was deployed and believed to be working. Attempts to reprogram the camera have not succeeded to date.
12. A missing DCC/Receiver case for use in foraging trip duration studies was found in camp. It was stored under the lab bench at the hut and both units are fine. They were tested for power and all seems to be well. We will leave them in the Telemetry case in the Lab along with the radio transmitters to be deployed in January on penguins with chicks if time and conditions permit.
13. We counted the gentoo penguin population at the Copa colony over two days, November 16-17. The gentoo numbers continue to increase, with a total population estimate of 6123 breeding pairs found occupying nests this year. This is a 13% increase in the gentoo population from last year's estimate. The largest changes in the Copa colony are in the Cliff and Moraine areas, where nearly 1400 pairs are now nesting, many interspersed among giant petrel nests.



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14. We censused the giant petrel population in all colonies at Copa and found a total of 200 pairs with nests; about 95% of the nests contained eggs while all the remaining nests were well formed and had pairs in attendance.

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